City of Berkley

City of Berkley Public Safety Pension Board
April 21, 2025- 4:00 PM

Berkley Public Safety Meeting Room-2nd Floor
2395 Twelve Mile Road
Berkley, MI 48072

1. Call to Order
2. Approval of the Agenda
3. Visitor Recognition and Comments
4. Old Business
5. New Business
    a. Approval of invoices
        - Loomis I Sayles - Invoice #248690 – 4/8/25 - $2,880.05
        - Harding Loevner – 4/15/25 -$4,654.24
    b. City of Berkley Public Safety Retirement System - Actuarial Valuation Report
        - Louise Gates
    c. Items For Discussion by the Board
    d. Next Board Meeting Date
        - Next Board Meeting Date is Monday, May 19, 2025, at 4:00 PM
6. Adjournment

April 15, 2025

Bryan Bemis
City of Berkley
3338 Coolidge Highway
Berkley, MI 48072

Re: City of Berkley Public Safety Retirement System
Custodian A/C# ****4623
HL A/C# 62182-1

SUMMARY OF MANAGEMENT FEES

For the Period April 01, 2025 - June 30, 2025

Portfolio Value as of	3/31/2025	$2,327,117.75
Billable Market Value		$2,327,117.75
Percent of Total		100.00 %

Tier (000's)	Market Value	Annual Rate	Management Fee
0 - 20,000	$2,327,117.75	0.80%	$4,654.24
			$4,654.24

TOTAL DUE AND PAYABLE **$4,654.24**

Payment by Check:
Remit payment to:

Harding Loevner
400 Crossing Boulevard
Fourth Floor
Bridgewater 08807
United States

If you prefer to remit payment via wire transfer, please include the following information.
Peapack Gladstone Bank
ABA # 021205237
Account Name: Harding Loevner LP
Account Number: 400151705

Correspondence:
Please call 908-218-7900 with questions. Thank you

cc: Brett Reardon

LOOMIS | SAYLES

Invoice Number **248690**
Invoice Date April 8, 2025
Customer Number 29993

Remittance Information on Back

Total Current Period Fee **$** **2,880.05**

Mail to:
EMAIL:
Finance Department

financetreasury@berkleymi.gov
,

REMIT TO: Loomis, Sayles & Company, L.P.
(Check) PO BOX 7247-6804
Philadelphia, PA 19170-6804
ACH/WIRE: Loomis, Sayles & Company, L.P.
c/o Citibank, N.A.
ABA# 021000089
Account # 3050-2896

(Tear off and send in with your payment)

Summary of fees for the period January 1, 2025 through March 31, 2025

763714 City of Berkley Public Safety Retirement System

Billable Market Value reported as of	03/31/2025	$	2,003,511.39	
Asset Basis			**$**	**2,003,511.39**
Total Asset Basis			**$**	**2,003,511.39**

Fee Calculation

2,003,511.39 @	57.5	bps	90 / 360	$ 2,880.05	$	2,880.05
Total Current Period Fee					**$**	**2,880.05**

	Remittance
Prior Month's Balance	6,059.74
Payments Received as of April 8, 2025	6,059.74
Current Charges	2,880.05
Closing Balance	**2,880.05**

City of Berkley Public Safety Retirement System

Actuarial Valuation Report

as of June 30, 2024

Table of Contents

800.521.0498 | P: 248.799.9000 | www.grsconsulting.com

April 16, 2025

The Retirement Board
City of Berkley
Public Safety Retirement System
Berkley, Michigan

Dear Board Members:

Submitted in this report are the results of the annual actuarial valuation of the City of Berkley Public Safety Retirement System which is based on Act 345, Public Acts of 1937, as amended. The date of the valuation was June 30, 2024. The purpose of the valuation is to measure the System's funding progress and liabilities and to determine the employer contribution for the fiscal year ending June 30, 2026. This report should not be relied upon for any other purpose.

This report was prepared at the request of the Retirement Board and is intended for use by the Board and those designated or approved by the Board. The report may be provided to parties other than the Board only in its entirety and only with the permission of the Board. GRS is not responsible for unauthorized use of this report. The computed contribution shown on page A-2 may be considered a minimum contribution that complies with the Board's funding objectives. Users of this report should be aware that contributions made at this rate do not guarantee benefit security. Given the importance of benefit security to any retirement system, we suggest that contributions to the System in excess of those presented in this report be considered.

Future actuarial measurements may differ significantly from the current measurements presented in this report due to such factors as the following: plan experience differing from that anticipated by the economic or demographic assumptions; changes in economic or demographic assumptions; increases or decreases expected as part of the natural operation of the methodology used for these measurements (such as the end of an amortization period or additional cost or contribution requirements based on the plan's funded status); and changes in plan provisions or applicable law. The scope of an actuarial valuation does not include analysis of the potential range of such future measurements.

This valuation is based upon the assumption that the plan sponsor will be able to make the contributions necessary to fund this plan in the future. A determination of the plan sponsors ability to do so is outside of the scope of our expertise and was not performed by us.

The valuation was based upon the information furnished by the City, including System benefits, financial transactions, plan provisions and member data. The information was checked for internal consistency but was not audited by us. As a result, we are unable to assume responsibility for the data provided.

The fiscal year 2026 contribution amounts shown in this report were determined using the actuarial assumptions and methods shown in Section C of this report. This report includes risk metrics on page D-1 but does not include additional risk metrics such as those that assess the risk of future experience not meeting actuarial assumptions. This report also includes a disclosure of the required Low-Default-Risk Obligation Measure (LDROM) on page Appendix-2. Additional assessment of risk metrics were beyond the scope of this assignment. We encourage a review and assessment of investment and other significant risks that may have a material impact on the System's financial condition.

This report was prepared using assumptions adopted by the Board. We believe that the assumptions and methods used are reasonable for the purpose of this valuation. The combined effect of the assumptions is expected to have no significant bias (i.e., not significantly optimistic or pessimistic). This report was prepared using our proprietary valuation model and related software which, in our professional judgment, has the capability to provide results that are consistent with the purposes of the valuation and has no material limitations or known weaknesses. We performed tests to ensure that the model reasonably represents that which is intended to be modeled.

To the best of our knowledge, the information contained in this report is accurate and fairly presents the actuarial position of the Retirement System, as of June 30, 2024. The valuation was conducted in accordance with generally accepted actuarial principles and practices and with standards of practice issued by the Actuarial Standards Board and in compliance with the applicable state statutes. Louise Gates, Laura Frankowiak and Stephanie Sullivan are independent of the plan sponsor and are Members of the American Academy of Actuaries (MAAA) who meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinions contained herein.

Respectfully submitted,
Gabriel, Roeder, Smith & Company

Louise Gates, ASA, FCA, MAAA

Laura Frankowiak, ASA, FCA, MAAA

Stephanie Sullivan, ASA, MAAA

SECTION A

VALUATION RESULTS AND COMMENTS

Financial Objective

The financial objective of the Retirement System is to establish and receive contributions, expressed as percentages of active member payroll, which will remain approximately level from year-to-year and will not have to be increased for future generations of citizens. This objective meets the requirements of the Act 345 and Section 24 of the Constitution of the State of Michigan.

Contribution Rates

The Retirement System is supported by contributions and investment income from Retirement System assets.

Contributions which satisfy the financial objective are determined by an annual actuarial valuation and are sufficient to:

(1) Cover the actuarial present value of benefits assigned to the current year by the actuarial cost methods described in Section C (the normal cost); and

(2) Amortize over a period of future years the actuarial present value of benefits not covered by valuation assets and anticipated future normal costs (unfunded actuarial accrued liability).

Contribution requirements for the fiscal year beginning July 1, 2025 are shown on page A-2.

General Implications of Contribution Allocation Procedure on Expected Future Contributions and Funded Status

Given the plan's contribution allocation procedure, if all actuarial assumptions are met (including the assumption of the plan earning 6.50% on the actuarial value of assets), then the following outcomes are expected:

1. The employer normal cost as a percentage of pay is expected to remain fairly level as a percentage of payroll.

2. The unfunded liability is expected to be paid off in approximately 10 years, which is the number of years remaining in the amortization period.

3. The funded status of the plan will gradually trend toward a 100% funded ratio.

Contributions to Meet the Financial Objective of the Retirement System

	Contributions Expressed as Percents-of-Payroll Fiscal Year Beginning July 1	
	2025	2024
Normal Cost		
Age & service benefits	22.97 %	22.91 %
Disability benefits	1.61 %	1.58 %
Survivor benefits	0.13 %	0.12 %
Deferred age & service benefits	2.44 %	2.58 %
Refunds of member contributions	0.01 %	0.01 %
Total Normal Cost	27.16 %	27.20 %
Amortization Payment **		
Unfunded Accrued Liabilities (UAL)	45.04 %	39.41 %
Total Contribution Requirement	72.20 %	66.61 %
Member portion	0.25 %	0.21 %
City's portion *	71.95 %	66.40 %
Computed Dollar Contribution	$1,843,742	$1,783,371

** *The UAL was amortized over a period of 10 years (11 years for the prior year's valuation)*

* *Weighted average employee contribution rate*

Note: The computed City contribution dollars shown above equal the City contribution rate multiplied by projected fiscal year payroll.

Computed and Actual City Contributions
Comparative Statement

Fiscal Year Beginning July 1	Valuation Date June 30	Valuation Payroll	City Contributions		
			As a Percent-of-Payroll	As a Dollar Amount	Amount Contributed
1996	1996	$ 1,494,071	19.96 %	$ 313,127	$ 313,127
1997@	1997	1,524,038	6.94 %	111,057	111,057
1998	1998	1,557,337	0.00 %	0	0
1999	1999	1,580,061	0.00 %	0	0
2000	2000	1,692,169	0.00 %	0	0
2001	2001	1,589,553	0.00 %	0	0
2002	2002	1,705,343	0.00 %	0	0
2003!	2002	1,705,343	0.00 %	0	0
2004#!	2003	1,586,780	16.73 %	292,625	292,625
2005	2004	1,694,995	20.19 %	377,256	377,256
2006	2005	1,733,726	21.95 %	419,560	419,560
2007	2006	1,786,622	25.71 %	506,423	506,423
2008	2007	1,817,975	24.94 %	499,877	499,877
2009	2008	1,647,768	24.91 %	452,531	452,531
2010	2009	1,688,980	38.02 %	719,836 *	719,836
2011	2010	1,832,223	38.66 %	780,942	781,547
2012	2011	1,654,634	39.19 %	770,451 *	770,451
2013	2012	1,647,404	39.69 %	780,105 *	780,105
2014	2013	1,608,110	37.77 %	726,568 *	726,568
2015@#	2014	1,545,682	37.31 %	660,531 *	703,468
2016	2015	1,634,162	37.26 %	713,669 *	713,669
2017	2016	1,714,050	37.90 %	743,054 ^	743,054
2018	2017	1,886,521	37.14 %	774,630 *	774,630
2019@	2018	2,071,292	45.68 %	1,013,557	1,013,557
2020	2019	2,092,363	48.66 %	1,090,661	1,203,500
2021	2020	2,261,324	48.19 %	1,167,348	1,303,500
2022	2021	2,369,336	45.05 %	1,143,410	1,315,000
2023	2022	2,220,886	51.80 %	1,232,358	**1,325,000**
2024@#	2023	2,507,223	66.40 %	1,783,371	
2025	**2024**	**2,392,152**	**71.95 %**	**1,843,742**	

 # After changes in benefit provisions
@ After changes in actuarial assumptions or methods
! Fiscal year moved one year forward
** The recommended dollar contribution was based on projected pay for a 28 member active population.*
^ The recommended dollar contribution was based on projected pay for a 27 member active population.

Note: Valuation payroll is pay reported for the corresponding actuarial valuation.

Development of Funding Value of Retirement System Assets

Year Ended June 30	2021	2022	2023	2024
A. Funding Value Beginning of Year	$ 19,477,065	$ 21,003,782	$ 21,301,766	$ 21,619,800
B. Market Value				
B1. Market Value End of Year	23,079,740	19,072,555	20,337,007	21,842,581
B2. Market Value Beginning of Year	18,772,194	23,079,740	19,072,555	20,337,007
B3. Audit Adjustment				(22,435)
C. Non-Investment Net Cash Flow	(364,120)	(480,673)	(704,584)	(654,124)
D. Investment Income				
D1. Market Total: B1 - B2 - B3 - C	4,671,666	(3,526,512)	1,969,036	2,182,133
D2. Amount for Immediate Recognition	1,350,650	1,453,441	1,466,463	1,382,570
D3. Amount for Phased-In Recognition: D1-D2	3,321,016	(4,979,953)	502,573	799,563
E. Phased-In Recognition of Investment Income				
E1. Current Year: 0.25 x D3	830,254	(1,244,988)	125,643	199,891
E2. First Prior Year	(154,753)	830,254	(1,244,988)	125,643
E3. Second Prior Year	(105,299)	(154,753)	830,254	(1,244,988)
E4. Third Prior Year	(30,015)	(105,297)	(154,754)	830,254
E5. Total Recognized Investment Gain / (Loss)	540,187	(674,784)	(443,845)	(89,200)
F. Funding Value End of Year				
F1. Preliminary Funding Value End of Year: A+B3+C+D2+E5	21,003,782	21,301,766	21,619,800	22,236,611
F2. Upper Corridor Limit: 120% x B1	27,695,688	22,887,066	24,404,408	26,211,097
F3. Lower Corridor Limit: 80% x B1	18,463,792	15,258,044	16,269,606	17,474,065
F4. Adjustment to Funding Value	0	0	0	0
F5. Funding Value End of Year	21,003,782	21,301,766	21,619,800	22,236,611
G. Difference between Market & Funding Value: B1-F5	2,075,958	(2,229,211)	(1,282,793)	(394,030)
H. Recognized Rate of Return	9.8%	3.8 %	4.9%	6.1%
I. Market Value Rate of Return	25.1%	(15.4)%	10.5%	10.9%

Actuarial Balance Sheet at June 30, 2024

Present Resources and Expected Future Resources

A. Accrued value of System assets	
1. Net assets from System financial statements (market value)	$21,842,581
2. Market value adjustment	394,030
3. Actuarial value of assets	22,236,611
B. Present value of expected future contributions	
1. For normal costs	5,503,671
2. For unfunded actuarial accrued liability	10,453,072
3. Totals	15,956,743
C. Present value of expected future member contributions	52,749
D. Total Present and Expected Future Resources	$38,246,103

Present Value of Expected Future Benefit Payments and Reserves

A. To retirants and beneficiaries	$22,290,448
B. To vested terminated members	130,247
C. To present active members to valuation date	
1. Allocated to service rendered prior to valuation date	10,268,988
2. Allocated to service likely to be rendered after valuation date	5,556,420
3. Totals	15,825,408
D. Total Present Value of Expected Future Benefit Payments	$38,246,103

Derivation of Actuarial Gain (Loss)
Year Ended June 30, 2024

The actuarial gains or losses realized in the operation of the Retirement System provide an experience test. Gains and losses are expected to cancel each other over a period of years and sizable year-to-year fluctuations are common. Detail on the derivation of the actuarial gain (loss) is shown below, along with a comparative schedule.

1. Unfunded Actuarial Accrued Liability (UAAL) at beginning of year	$10,056,370
2. Total normal cost	650,665
3. Actual contributions	1,404,807
4. Interest accrual	629,540
5. Expected UAAL before changes: (1)+(2)-(3)+(4)	9,931,768
6. Change due to plan changes	0
7. Change due to revised actuarial assumptions and methods	0
8. Expected UAAL after changes: (5)+(6)+(7)	9,931,768
9. Actual UAAL at end of year	10,453,072
10. Total gain (loss): (8)-(9)	(521,304)
As percent of AAL at beginning of year ($31,676,170)	(1.6)%
11. Investment gain (loss)	(89,200)
12. Non-investment gain (loss): (10)-(11)	(432,104)

Valuation Date June 30	Actuarial Gain (Loss) as a % of Beginning Accrued Liabilities
2020	(0.9)%
2021	1.3 %
2022	(4.4)%
2023	(4.4)%
2024	(1.6)%

Comments and Recommendations

Comment A: There were no assumption changes reflected in this valuation of the System. No benefit changes were reported to the actuary in connection with this valuation of the System. The change in contributions over the prior valuation is due primarily to System experience.

Comment B: Retirement System experience was overall unfavorable for the year ending June 30, 2024. The primary source of unfavorable experience was subsidized service purchases by 4 employee members of the System. Although the net return on System assets was higher than long term expectations, there was an investment loss. The market smoothing techniques used in this valuation of the System recognize both past and present investment experience, and as a result, the recognized rate of investment return was 6.1%. The unfavorable System experience was offset in part by data corrections.

In addition, the City contributed more than the actuarially determined contribution during fiscal year 2024, which partially offset the unfavorable experience.

Comment C: The funded ratio of the System (measured using the funding value of assets) as of June 30, 2024 was 68.0%. The funded ratio measured on the same basis as of June 30, 2023 was 68.3%. If the market value of System assets were used to measure the funded ratio as of June 30, 2024 the result would be 66.8%.

Unless otherwise indicated, a funded status measurement presented in this report is based on the actuarial accrued liability and the actuarial value of assets. Unless otherwise indicated, with regard to the funded status measurements shown in this report we note the following:

- The measurement is inappropriate for assessing the sufficiency of plan assets to cover the estimated cost of settling the plan's benefit obligations.
- The measurement is inappropriate for assessing the need for or the amount of future employer contributions.
- The measurement would produce a different result if the market value of assets were used instead of the actuarial value of assets.

Comment D: Each year, the actuary compares the actuarial present value of retired benefit payments to the value of assets in the Retired Benefit Payments Reserve. To the extent that there is a shortfall, a reserve transfer is made. As of the valuation date, the value of retiree benefits was $22,290,448. This information may be used along with the reserve balance to implement a transfer if needed.

SECTION B

SUMMARY OF BENEFITS, ASSETS AND VALUATION DATA

Brief Summary of Act 345 Benefit Conditions Evaluated June 30, 2024

Eligibility	Amount
Service Retirement	
25 or more years of service or age 60 regardless of service. Military service prior to employment and other public employment may be purchased.	Straight life pension equals 2.8% (2.5% for PSO members hired on or after 7/1/2015) of 3-year Average Final Compensation (AFC) times first 25 years of service plus 1% of AFC times years of service in excess of 25 years. Maximum benefit is 85% of "base" wages.
Deferred Retirement	
10 or more years of service.	Computed as service retirement but based upon service, AFC and benefit in effect at termination. Benefit begins at date retirement would have occurred had member remained in employment.
Death After Retirement Survivor's Pension	
Payable to a surviving spouse, if any, upon the death of a retired member who was receiving a straight life pension which was effective July 1, 1975 or later.	Spouse's pension equals 60% of the straight life pension the deceased retirant was receiving. If the pension is deferred the benefit terminates after the retiree expires, with no survivor benefit.
Non-Duty Death-In-Service Survivor's Pension	
Payable to a surviving spouse, if any, upon the death of a member with 20 or more years of service.	Accrued straight life pension actuarially reduced in accordance with an Option I Election.
Duty Death-In-Service Survivor's Pension	
Payable upon the expiration of worker's compensation to the survivors of a member who died in the line of duty.	Same amount that was paid by worker's compensation.
Non-Duty Disability	
Payable upon the total and permanent disability of a member with 5 or more years of service.	To Age 55: 1.5% of AFC times years of service. At Age 55: Same as Service Retirement Pension.
Duty Disability	
Payable upon the total and permanent disability of a member in the line of duty.	To Age 55: 50% of AFC. At Age 55: Same as Service Retirement Pension with service credit from date of disability to age 55.
Member Contributions	
The Police Chief contributes 5% of pay.	
Annuity Withdrawal	
Accumulated member contributions, (including interest), may be withdrawn at retirement with an actuarial reduction in the pension that would otherwise be payable.	

Summary of Reported Asset Information for the Year Ending June 30, 2024

Assets

	Market Value June 30, 2024
Cash & Equivalents	$ 379,999
Receivables	0
Bonds & Mortgages	7,799,797
Stocks	13,684,811
Short term Investment Funds	0
Other	0
Total Assets	21,864,607
Less Accounts Payable	(22,026)
Net Assets Available for Benefits	$ 21,842,581

Revenues and Expenses

	2023-2024
Balance - July 1,	$20,337,007
Audit Adjustment	(22,435)
Revenues	
Employee Contributions	79,807
Employer Contributions	1,325,000
Investment Return	2,377,586
Miscellaneous	0
Total Revenues	3,782,393
Expenses	
Benefit Payments	2,058,931
Refunds of Member Contributions	0
Investment Expense	50,100
Administrative Expenses	145,353
Total Expenses	2,254,384
Balance - June 30,	$21,842,581

Asset Information Reported for Valuation
Comparative Statement

Year Ended June 30	Assets Beginning of Year	Revenues			Expenses			Assets End of Year
		Employee Contrib.	Employer Contrib.	Investment Income	Retirement Benefits	Contrib. Refunds	Other Expenses	
2000	$ 21,502,650	$ 88,649		$ 1,812,161	$ 636,402	$ 14,168		$ 22,752,890
2001	22,752,890	93,699		(2,392,068)	756,044		$ 183,766	19,514,711
2002	19,514,711	96,804		(2,453,331)	767,649	8,384		16,382,151
2003	16,382,151	111,965		170,760	889,334		126,768	15,648,774
2004	15,648,774	104,386		2,427,293	984,655		145,931	17,049,867
2005	17,049,867	7,971	$ 292,625	455,205	938,432		18,268	16,848,968
2006	16,848,968	5,322	377,256	1,452,669	963,993		151,565	17,568,657
2007	17,568,657	15,742	419,560	2,583,235	989,037		196,187	19,401,970
2008	19,401,970	4,364	506,423	(1,233,491)	1,094,152		202,100	17,383,014
2009	17,383,014	66,965	499,877	(2,950,976)	1,239,764		173,434	13,585,682
2010	13,585,682	4,333	452,531	2,294,799	1,265,067		194,160	14,878,118
2011	14,878,118	4,332	719,836	3,058,201	1,463,789		162,961	17,033,737
2012	17,033,737	4,332	781,547	53,953	1,375,119		161,430	16,337,020
2013	16,337,020	956	770,451	1,999,573	1,499,465		157,763	17,450,772
2014	17,450,772	90,169	780,105	2,881,903	1,575,360	62,921	180,407	19,384,261
2015	19,384,261		726,568	490,876	1,682,082		175,824	18,743,799
2016	18,743,799		703,468	24,920	1,704,339		166,978	17,600,870
2017	17,600,870		713,669	2,115,613	1,742,208		182,062	18,505,882
2018	18,505,882	121,717	743,054	1,461,708	1,752,501		182,943	18,896,917
2019*	18,900,211	38,385	774,630	1,063,649	1,768,877		182,291	18,825,707
2020	18,825,707	6,718	1,013,557	875,510	1,763,153		186,145	18,772,194
2021	18,772,194	204,534	1,203,500	4,870,632	1,772,154		198,966	23,079,740
2022	23,079,740	58,982	1,303,500	(3,316,067)	1,843,155		210,445	19,072,555
2023	19,072,555	16,393	1,315,000	2,133,585	2,035,977		164,549	20,337,007
2024*	**20,314,572**	**79,807**	**1,325,000**	**2,377,586**	**2,058,931**	**0**	**195,453**	**21,842,581**

** Includes an audit adjustment of $3,294 in 2019 and an audit adjustment of ($22,435) in 2024.*

Retirants and Beneficiaries Added to and Removed from Rolls
Comparative Statement

Year Ended June 30	Added to Rolls#		Removed from Rolls		Rolls End of Year				Average Pensions	Present Value of Pensions
	No.	Annual Pensions	No.	Annual Pensions	No.	Active per Retired	Annual Pensions Dollars	Annual Pensions % of Pay		
1993	2	$ 65,854	1	$ 4,070	28	1.0	$ 538,963	41.5%	$ 19,249	$ 5,931,622
1994	1	11,333	1	18,887	28	1.0	531,409	37.6%	18,979	5,763,025
1995	1	22,178	1	36,965	28	1.0	516,622	36.3%	18,451	5,513,187
1996	1	3,848	1	6,414	28	1.1	514,056	34.4%	18,359	5,410,663
1997	2	34,774	1	5,530	29	1.1	543,300	35.6%	18,734	5,678,617
1998	2	56,645	1	3,849	30	1.0	596,097	38.3%	19,870	6,284,914
1999	2	46,523	1	14,173	31	1.0	628,447	39.8%	20,272	6,570,560
2000			1	5,294	30	1.0	623,153	36.8%	20,772	6,455,369
2001	1	42,625			31	0.9	665,778	41.9%	21,477	6,839,727
2002	2	71,192	1	6,744	32	0.9	730,226	42.8%	22,820	7,495,638
2003	3	145,171	2	16,383	33	0.8	859,014	54.1%	26,031	8,958,356
2004			1	14,278	32	0.9	844,737	49.8%	26,398	8,737,103
2006					33	0.8	892,606	50.0%	27,049	9,025,910
2007	1	42,670			34	0.8	935,276	51.4%	27,508	9,405,669
2008	4	177,044			38	0.7	1,112,320	67.5%	29,272	11,359,299
2009@	3	179,333	2	27,277	39	0.7	1,264,376	74.9%	32,420	12,781,894
2010					39	0.7	1,264,376	69.0%	32,420	12,569,401
2011	2	113,798			41	0.6	1,378,174	83.3%	33,614	13,641,380
2012	3	97,326	2	63,615	42	0.6	1,411,885	85.7%	33,616	13,906,305
2013	4	127,462	2	27,273	44	0.6	1,512,074	94.0%	34,365	15,018,784
2014	6	216,242	2	46,234	48	0.5	1,682,082	108.8%	35,043	17,698,072
2015	1*				49	0.5	1,682,082	102.9%	34,328	17,384,622
2016	3	106,752	3	48,778	49	0.5	1,740,056	101.5%	35,511	18,143,792
2017	3*	53,671	2	75,456	50	0.5	1,718,271	91.1%	34,365	17,775,644
2018	1	64,435	1	13,828	50	0.6	1,768,878	85.4%	35,378	19,063,414
2019					50	0.5	1,768,878	84.5%	35,378	18,739,827
2020	1	17,174	1	28,624	50	0.6	1,757,428	77.7%	35,149	18,302,699
2021	2	74,017	1	32,822	51	0.6	1,798,623	75.9%	35,267	18,632,203
2022	5	150,281	2	36,751	54	0.5	1,912,153	86.1%	35,410	19,935,558
2023	4	143,911			58	0.6	2,056,064	82.0%	35,449	22,625,409
2024	1	27,870	1	42,818	58	0.5	2,041,116	85.3%	35,192	22,290,448

*@ Amounts include post-retirement increases. # Includes beneficiaries of deceased retirees. * Includes Alternate Payee(s).*

Retirants and Beneficiaries as of June 30, 2024
Tabulated by Type of Pensions Being Paid

Type of Pensions Being Paid	Number	Annual Pensions
Age and Service Pensions		
Regular pension - benefit terminating at death of retirant	15	$ 371,872
Regular pension automatic 60% to surviving spouse	19	841,966
Option 1 - joint and 100% survivor benefit	13	565,930
Option 2 - joint and 50% survivor benefit	0	0
Survivor beneficiary	9	184,915
Total age and service pensions	56	1,964,683
Disability Pensions		
Duty Disability	2	76,433
Total disability pensions	2	76,433
Total	**58**	**$2,041,116**

The valuation of the System also includes 1 terminated vested member who is not yet receiving their benefit. The terminated vested member is age 33.0 years and has an annual estimated benefit of $22,870.

Active Members Included in Valuation
Comparative Statement

Valuation Date June 30	No. of Actives	Valuation Payroll	Averages			% Incr. in Average Pay
			Age	Years of Service	Pay	
2000	31	$1,692,169	41.4	14.6	$54,586	7.1 %
2001	28	1,589,553	42.5	16.1	56,770	4.0 %
2002	29	1,705,343	42.0	15.5	58,805	3.6 %
2003	27	1,586,780	42.6	14.7	58,770	(0.1)%
2004	28	1,694,995	42.9	16.0	60,536	3.0 %
2005	28	1,733,726	42.9	16.1	61,919	2.3 %
2006	28	1,786,622	43.9	17.2	63,808	3.1 %
2007	28	1,817,975	44.0	17.2	64,928	1.8 %
2008	26	1,647,768	41.0	14.4	63,376	(2.4)%
2009	27	1,688,980	40.0	13.3	62,555	(1.3)%
2010	28	1,832,223	40.8	13.8	65,437	4.6 %
2011	25	1,654,634	40.8	13.5	66,185	1.1 %
2012	25	1,647,404	41.1	13.3	65,896	(0.4)%
2013	25	1,608,110	40.3	11.8	64,324	(2.4)%
2014	26	1,545,682	36.6	8.0	59,449	(7.6)%
2015	25	1,634,162	38.1	9.3	65,366	10.0 %
2016	25	1,714,050	39.4	8.2	68,562	4.9 %
2017	27	1,886,521	39.6	8.5	69,871	1.9 %
2018	28	2,071,292	40.5	8.7	73,975	5.9 %
2019	27	2,092,363	41.3	10.0	77,495	4.8 %
2020	29	2,261,324	41.4	10.3	77,977	0.6 %
2021	30	2,369,336	41.4	10.4	78,978	1.3 %
2022	27	2,220,886	41.5	10.6	82,255	4.1 %
2023	32	2,507,223	41.3	8.9	78,351	(4.7)%
2024	27	2,392,152	43.0	11.4	88,598	13.1 %

Additions to and Removals from Active Membership
Actual and Expected Numbers

Year Ended June 30	Number Added During Year		Terminations During Year										Active Members End of Year
			Normal Retirement		Disabled		Died In Service		Withdrawals				
									Vested	Other	Total		
	A	E	A	E	A	E	A	E	A	A	A	E	
2015	0	1	0	0.0	0	0.1	0	0.0	0	1	1	0.9	25
2016	4	4	1	0.0	1	0.1	0	0.0	0	2	2	0.9	25
2017	2	0	0	0.0	0	0.1	0	0.0	0	0	0	0.8	27
2018	2	1	1	0.0	0	0.1	0	0.0	0	0	0	0.8	28
2019	0	1	0	0.0	0	0.1	0	0.0	0	1	1	0.8	27
2020	2	0	0	0.0	0	0.1	0	0.0	0	0	0	0.8	29
2021	2	1	1	0.0	0	0.1	0	0.0	0	0	0	0.8	30
2022	2	5	2	0.4	0	0.1	0	0.0	1	2	3	0.8	27
2023	8	3	1	0.4	1	0.1	0	0.0	0	1	1	0.8	32
2024	1	6	1	1.3	0	0.1	0	0.0	1	4	5	0.9	27
10 Year Total	23	22	7	2.1	2	1.0	0	0.0	2	11	13	8.3	

A = Actual number E = Expected number based on assumptions outlined in Section C.

Active Members as of June 30, 2024
by Age and Years of Service

Age Group	Years of Service on Valuation Date							Totals	
	0-4	5-9	10-14	15-19	20-24	25-29	30 Plus	No.	Salary
25-29		1						1	$ 80,921
30-34	1		1					2	148,612
35-39	1	4	2	1				8	643,978
40-44			2	3				5	489,911
45-49	1	1	1	1	2			6	565,191
50-54					1			1	79,655
55-59		3	1					4	383,884
Totals	**3**	**9**	**7**	**5**	**3**			**27**	**$ 2,392,152**

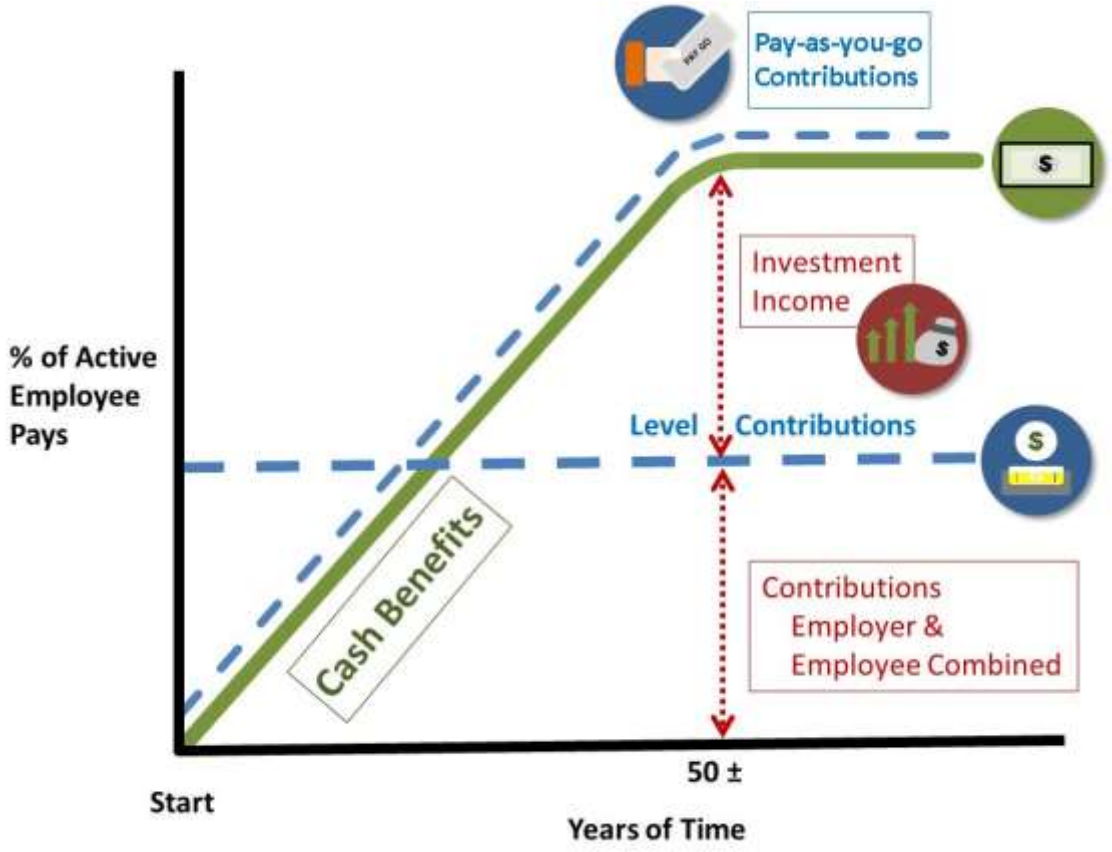
While not used in the financial computations, the following group averages are computed and shown because of their general interest.

Age: 43.0 years

Service: 11.4 years

SECTION C

ACTUARIAL VALUATION PROCESS, ACTUARIAL ASSUMPTIONS AND METHODS AND DEFINITIONS OF TECHNICAL TERMS



CASH BENEFITS LINE. This relentlessly increasing line is the fundamental reality of retirement plan financing. It happens each time a new benefit is added for future retirements (and happens regardless of the design for contributing for benefits).

LEVEL CONTRIBUTION LINE. Determining the level contribution line requires detailed assumptions concerning a variety of experiences in future decades, including:

- **Economic Risk Areas**
  - Rates of investment return
  - Rates of pay increase
  - Changes in active member group size
- **Non-Economic Risk Areas**
  - Ages at actual retirement
  - Rates of mortality
  - Rates of withdrawal of active members (turnover)
  - Rates of disability

The Actuarial Valuation Process

The financing diagram on the previous page shows the relationship between the two fundamentally different philosophies of paying for retirement benefits: the method where contributions match cash benefit payments (or barely exceed cash benefit payments, as in the Federal Social Security program) which is an ***increasing contribution method***; and the ***level contribution method*** which equalizes contributions between the generations.

The actuarial valuation is the mathematical process by which the level contribution rate is determined, and the flow of activity constituting the valuation may be summarized as follows:

A. ***Covered Person Data***, furnished by plan administrator:
Retired lives now receiving benefits
Former employees with vested benefits not yet payable
Active employees

B. + ***Asset data*** (cash & investments), furnished by plan administrator

C. + ***Assumptions concerning future financial experience in various risk areas***, which assumptions are established by the Retirement Board after consulting with the actuary

D. + ***The funding method*** for employer contributions (the long-term, planned pattern for employer contributions)

E. + ***Mathematically combining the assumptions, the funding method, and the data***

F. = Determination of:
Plan financial position
and/or New Employer Contribution Rate

Actuarial Methods Used for the Valuation

Normal cost and the allocation of actuarial present values between service rendered before and after the valuation date were determined using an individual entry-age actuarial cost method having the following characteristics:

(1) The annual normal costs for each individual active member, payable from the member's date of entry to the member's projected date of retirement, are sufficient to accumulate the actuarial present value of the member's future service benefit at the time of retirement; and

(2) Each annual normal cost is a constant percentage of the member's year-by-year projected covered pay.

Amortization of Unfunded Actuarial Accrued Liabilities. The Unfunded Actuarial Accrued Liability (UAAL) was determined using the funding value of assets and actuarial accrued liability calculated as of the valuation date. The UAAL amortization payment (one component of the contribution requirement), is the level percent of payroll payment required to fully amortize the UAAL over a 10-year period beginning on the date contributions determined by this report are scheduled to begin. This UAAL payment reflects any payments expected to be made between the valuation date and the date contributions are scheduled to begin.

Active member payroll was assumed to increase 3.50% a year for the purpose of determining the level percent of pay contributions.

***Funding Value of Assets*:** The funding value of assets recognizes assumed investment income (line D2) fully each year. Differences between actual and assumed investment income (line D3) are phased-in over a closed 4-year period. During periods when investment performance exceeds the assumed rate, funding value of assets will tend to be less than market value. During periods when investment performance is less than the assumed rate, funding value of assets will tend to be greater than market value. The funding value of assets is *unbiased* with respect to market value. At any time, it may be either greater or less than market value.

Actuarial Assumptions Used for the Valuation

Investment Return **-** 6.50% per year, compounded annually (net of investment and administrative expenses). This assumption was first used for the June 30, 2023 valuation.

Pay Projections **-** These assumptions are used to project current pays to those upon which benefits will be based. The base (economic) rates were first used for the June 30, 2018 valuation.

Sample Ages	Annual Rate of Pay Increase for Sample Ages	
	Base (Economic)	Merit and Longevity
20	3.5%	4.0%
25	3.5%	4.0%
30	3.5%	3.6%
35	3.5%	2.1%
40	3.5%	1.2%
45	3.5%	1.2%
50	3.5%	1.2%
55	3.5%	1.1%
60	3.5%	1.0%
Ref:		99

Actuarial Assumptions Used for the Valuation

Rates of Mortality - This assumption is used to measure the probabilities of members dying before retirement and the probabilities of each benefit payment being made after retirement. The tables noted below were first used for the June 30, 2023 valuation.

Descriptions of the tables and sample life expectancies are as follows:

- **Pre-Retirement:** The Pub-2010, Headcount-Weighted, Safety Employee Mortality Tables, with future mortality improvements projected using the fully generational MP-2021 projection scale with a base year of 2010.
- **Healthy Post-Retirement:** The Pub-2010, Headcount-Weighted, Safety Healthy Retiree Mortality Tables, with future mortality improvements projected using the fully generational MP-2021 projection scale with a base year of 2010.
- **Disability Retirement:** The Pub-2010, Headcount-Weighted, Safety Disabled Retiree Mortality Tables, with future mortality improvements projected using the fully generational MP-2021 projection scale with a base year of 2010.

Sample Ages	Future Life Expectancy (Years)*					
	Pre-Retirement		Healthy Post-Retirement		Disabled Retirement	
	Men	Women	Men	Women	Men	Women
50	37.85	40.60	34.57	37.20	32.91	34.73
55	32.78	35.51	29.61	32.14	28.18	29.83
60	27.80	30.49	24.79	27.30	23.66	25.28
65	22.96	25.53	20.30	22.72	19.47	21.04
70	18.31	20.66	16.08	18.41	15.57	16.97
75	13.90	15.99	12.25	14.41	12.00	13.21
80	9.78	11.62	8.91	10.85	8.86	10.03

** Based on retirements in 2024. Retirements in future years will reflect improvements in life expectancy.*

Actuarial Assumptions Used for the Valuation

Rates of separation from active membership **-** These rates do not apply to members eligible to retire and do not include separation on account of death or disability. This assumption measures the probabilities of members remaining in employment. The rates were first used for the June 30, 1997 valuation.

Sample Ages	Percent Separating within Next Year
25	5.0%
30	4.7%
35	4.3%
40	3.2%
45	1.4%
50	0.9%
55	0.9%
60	0.9%
Ref:	147

Rates of Disability **-** These assumptions represent the probabilities of active members becoming disabled.

Sample Ages	Men	Women
20	0.07%	0.03%
25	0.09%	0.05%
30	0.10%	0.07%
35	0.14%	0.13%
40	0.21%	0.19%
45	0.32%	0.28%
50	0.52%	0.45%
55	0.92%	0.76%
60	1.53%	1.10%
65	1.65%	0.98%
Ref:	33	34

It is assumed that 50% of future disabilities are duty related.

Actuarial Assumptions Used for the Valuation

Rates of Retirement - These rates are used to measure the probabilities of an eligible member retiring during the next year.

Retirement Ages	Percents of Eligible Active Members Retiring within Next Year
45-49	35%
50	60%
51	45%
52	35%
53	25%
54	25%
55	25%
56	25%
57	25%
58	45%
59	55%
60	100%
Ref	519

Years of Service	Percents of Eligible Active Members Retiring within Next Year
23	25%
24	25%
25	20%
26	20%
27	20%
28	15%
29	15%
30	35%
31	30%
32	30%
33	100%
Ref	2473

A member was assumed to be eligible for retirement after completion of 23 years of service or after attaining age 60. The service based rates above were first used for the June 30, 2023 valuation of the System. The age based rates were first used for the June 30, 1992 valuation.

Active Member Group Size - The number of active members was assumed to remain constant. This assumption is unchanged from previous valuations.

Miscellaneous and Technical Assumptions

Marriage Assumption:	100% of males and 100% of females are assumed to be married for purposes of death-in-service benefits. Male spouses are assumed to be three years older than female spouses for active valuation purposes.
Pay Increase Timing:	Beginning of (Fiscal) year. This is equivalent to assuming that reported pays represent amounts paid to members during the year ended on the valuation date.
Decrement Timing:	Decrements of all types are assumed to occur mid-year.
Eligibility Testing:	Eligibility for benefits is determined based upon the age nearest birthday and service nearest whole year on the date the decrement is assumed to occur.
Decrement Relativity:	Decrement rates are used directly from the experience study, without adjustment for multiple decrement table effects.
Decrement Operation:	Disability and mortality decrements do not operate during the first 5 years of service. Disability does not operate during retirement eligibility.
Loads:	Age and Service Retirement Present Values were loaded by 12% to account for the additional amount included in the FAC due to unused sick time and unused vacation time.
Incidence of Contributions:	Contributions are assumed to be received continuously throughout the year based upon the computed percent-of-payroll shown in this report, and the actual payroll payable at the time contributions are made.
Normal Form of Benefit:	A 60% automatic joint and survivor payment is the normal form of benefit for all benefits which commence immediately to married members. For the terminated deferred vested benefits, the normal form of benefit is the straight life form.
Benefit Service:	Exact Fractional service is used to determine the amount of benefit payable.

Definitions of Technical Terms

Accrued Service: Service credited under the system which was rendered before the date of the actuarial valuation.

Actuarial Accrued Liability: The difference between the actuarial present value of system benefits and the actuarial present value of future normal costs. Also referred to as "past service liability."

Actuarial Assumptions: Estimates of future experience with respect to rates of mortality, disability, turnover, retirement, rate or rates of investment income and salary increases. Decrement assumptions (rates of mortality, disability, turnover and retirement) are generally based on past experience, often modified for projected changes in conditions. Economic assumptions (salary increases and investment income) consist of an underlying rate in an inflation-free environment plus a provision for a long-term average rate of inflation.

Actuarial Cost Method: A mathematical budgeting procedure for allocating the dollar amount of the "actuarial present value of future benefits" between future normal costs and actuarial accrued liability. Sometimes referred to as the "actuarial funding method."

Actuarial Equivalent: One series of payments is said to be actuarially equivalent to another series of payments if the two series have the same actuarial present value.

Actuarial Gain (Loss): The difference between actual unfunded actuarial accrued liabilities and anticipated unfunded actuarial accrued liabilities -- during the period between two valuation dates. It is a measurement of the difference between actual and expected experience.

Actuarial Present Value: The amount of funds currently required to provide a payment or series of payments in the future. It is determined by discounting future payments at predetermined rates of interest, and by probabilities of payments.

Actuary: A person who is trained in the applications of probability and compound interest to solve problems in business and finance that involve payment of money in the future, contingent upon the occurrence of future events. Most actuaries in the United States are Members of the American Academy of Actuaries. The Society of Actuaries is an international research, education and membership organization for actuaries in the life and health insurance, employee benefits, and pension fields. It administers a series of examinations leading initially to Associateship and the designation ASA and ultimately to Fellowship with the designation FSA.

Amortization: Paying off an interest-discounted amount with periodic payments of interest and (generally) principal -- as opposed to paying off with a lump sum payment.

Definitions of Technical Terms

Credited Projected Benefit: The portion of a member's projected benefit attributable to service before the valuation date - allocated based on the ratio of accrued service to projected total service and based on anticipated future compensation.

Normal Cost: The portion of the actuarial present value of future benefits that is assigned to the current year by the actuarial cost method. Sometimes referred to as "current service cost."

Unfunded Actuarial Accrued Liabilities: The difference between actuarial accrued liabilities and valuation assets. Sometimes referred to as "unfunded past service liability" or "unfunded supplemental present value."

Most retirement systems have unfunded actuarial accrued liabilities. They arise each time new benefits are added and each time an actuarial loss occurs.

The existence of unfunded actuarial accrued liabilities is not in itself bad, any more than a mortgage on a house is bad. Unfunded actuarial accrued liabilities do not represent a debt that is payable today. What is important is the ability to amortize the unfunded actuarial accrued liabilities and the trend in their amount (after due allowance for devaluation of the dollar).

Valuation Assets: The value of cash, investments and other property belonging to a pension plan, as used for the purpose of an actuarial valuation.

SECTION D

OTHER FINANCIAL INFORMATION

Schedule of Funding Progress
(Dollar Amounts in Millions)

Actuarial Valuation Date	Actuarial Value of Assets (a)	Actuarial Accrued Liability (AAL) Entry Age (b)	Unfunded AAL (UAAL) (b)-(a)	Funded Ratio (a)/(b)	Covered Payroll (c)	UAAL as a Percent of Covered Payroll [(b)-(a)]/(c)
6/30/14	$18.3	$22.3	$4.0	82.1%	$1.5	266.7%
6/30/15	18.6	22.8	4.2	81.6%	1.6	262.5%
6/30/16	18.9	23.2	4.3	81.5%	1.7	252.9%
6/30/17	19.1	23.3	4.2	82.0%	1.9	221.1%
6/30/18	19.1	25.2	6.1	75.7%	2.1	290.5%
6/30/19	19.1	25.9	6.8	73.6%	2.1	323.8%
6/30/20	19.5	26.5	7.0	73.6%	2.3	304.3%
6/30/21	21.0	27.2	6.2	77.2%	2.4	258.3%
6/30/22	21.3	28.3	7.0	75.3%	2.2	318.2%
6/30/23	21.6	31.7	10.1	68.3%	2.5	404.0%
6/30/24	22.2	32.7	10.5	68.0%	2.4	437.5%

Summary of Actuarial Methods and Assumptions

The information presented below was determined as part of the latest actuarial valuation as follows:

Valuation Date	June 30, 2024
Actuarial Cost Method	Entry-Age
Amortization Method	Level percent-of-pay
Amortization Period	10 years (closed)
Asset Valuation Method	4-year smoothed market 80%/120% corridor

Actuarial Assumptions:

Investment rate of return	6.50%
Projected salary increases*	3.50% - 7.50%
Cost-of-living adjustments	N.A.
Payroll growth	3.50%
Group size growth	0%

**Includes wage inflation at 3.5%.*

APPENDIX

RISK MEASURES

Risks Associated with Measuring the Accrued Liability and Actuarially Determined Contribution

The determination of the actuarial liability and the actuarially determined contribution requires the use of assumptions regarding future economic and demographic experience. Risk measures, as illustrated in this report, are intended to aid in the understanding of the effects of future experience differing from the assumptions used in the course of the actuarial valuation. Risk measures may also help with illustrating the potential volatility in the actuarial liability and the actuarially determined contribution that result from the differences between actual experience and the actuarial assumptions.

Future actuarial measurements may differ significantly from the current measurements presented in this report due to such factors as the following: plan experience differing from that anticipated by the economic or demographic assumptions; changes in economic or demographic assumptions due to changing conditions; increases or decreases expected as part of the natural operation of the methodology used for these measurements (such as the end of an amortization period, or additional cost or contribution requirements based on the System's funded status); and changes in plan provisions or applicable law. The scope of an actuarial valuation does not include an analysis of the potential range of such future measurements.

Examples of risk that may reasonably be anticipated to significantly affect the plan's future financial condition include:

1. **Investment Risk** – actual investment returns may differ from the expected returns;
2. **Asset/Liability Mismatch** – changes in asset values may not match changes in liabilities, thereby altering the gap between the actuarial liability and assets and consequently altering the funded status and contribution requirements;
3. **Contribution Risk** – actual contributions may differ from expected future contributions. For example, actual contributions may not be made in accordance with the plan's funding policy or material changes may occur in the anticipated number of covered employees, covered payroll, or other relevant contribution base;
4. **Salary and Payroll Risk** – actual salaries and total payroll may differ from expected, resulting in actual future actuarial liability and contributions differing from expected;
5. **Longevity Risk** – members may live longer or shorter than expected and receive pensions for a period of time other than assumed; and
6. **Other Demographic Risks** – members may terminate, retire or become disabled at times or with benefits other than assumed resulting in actual future actuarial liability and contributions differing from expected.

The effects of certain trends in experience can generally be anticipated. For example, if the investment return since the most recent actuarial valuation is less (or more) than the assumed rate, the cost of the plan can be expected to increase (or decrease). Likewise, if longevity is improving (or worsening), increases (or decreases) in cost can be anticipated.

Low-Default-Risk Obligation Measure

Introduction

In December 2021, the Actuarial Standards Board (ASB) adopted a revision to Actuarial Standard of Practice (ASOP) No. 4, *Measuring Pension Obligations and Determining Pension Plan Costs or Contributions*. The revised ASOP No. 4 requires the calculation and disclosure of a liability referred to by the ASOP as the "Low-Default-Risk Obligation Measure" (LDROM). The rationale that the ASB cited for the calculation and disclosure of the LDROM was included in the Transmittal Memorandum of ASOP No. 4 and is presented below (emphasis added):

> "The ASB believes that the calculation and disclosure of this measure provides **appropriate, useful information for the intended user regarding the funded status of a pension plan**. The calculation and disclosure of this additional measure is **not intended to suggest that this is the "right" liability measure** for a pension plan. However, the ASB does believe that **this additional disclosure provides a more complete assessment of a plan's funded status and provides additional information regarding the security of benefits that members have earned as of the measurement date.**"

Comparing the Accrued Liabilities and the LDROM

One of the fundamental financial objectives of the City of Berkley Public Safety Retirement System is to finance each member's retirement benefit over the period from the member's date of hire until the member's projected date of retirement (entry age actuarial cost method) as a level percentage of payroll. To fulfill this objective, the discount rate that is used to value the accrued liabilities of the City of Berkley Public Safety Retirement System is set equal to the **expected return** on the System's diversified portfolio of assets (referred to sometimes as the investment return assumption). Effective with the June 30, 2023 valuation of the System, the investment return assumption is 6.50%.

The LDROM is meant to approximately represent the lump sum cost to a plan to purchase low-default-risk fixed income securities whose resulting cash flows essentially replicate in timing and amount the benefits earned (or the costs accrued) as of the measurement date. The LDROM is very dependent upon market interest rates at the time of the LDROM measurement. The lower the market interest rates, the higher the LDROM, and vice versa. The LDROM results presented in this report are based on the entry age actuarial cost method and discount rates based upon the June 2024 Treasury Yield Curve Spot Rates (end of month). The 1-, 5-, 10- and 30-year rates follow: 5.12%, 4.34%, 4.22% and 4.45%. This measure may not be appropriate for assessing the need for or amount of future contributions. This measure may not be appropriate for assessing the sufficiency of plan assets to cover the estimated cost of settling the plan's benefit obligation.

The difference between the two measures (Valuation and LDROM) is one illustration of the savings the sponsor anticipates by taking on risk in a diversified portfolio.

Accrued Liabilities as of June 30, 2024
Using Alternate Discount Rates

Valuation	LDROM
$32,689,683	$42,149,765